

**What is claimed is:**

1. An electrolytic plating method,  
comprising:

5 using a wiring board as one pole, and an insoluble  
electrode as the other pole; and

performing electrolytic plating by applying a  
forward/reverse current with the use of a metal plating  
solution which includes iron ions by 0. 1 gram/liter  
10 or more, so that microvia holes on the wiring board are  
filled up with metal plating.

2. The electrolytic plating method according  
to claim 1, wherein

15 the metal plating solution is stirred to flow in  
parallel to a surface to be plated of the wiring board.

3. The electrolytic plating method according  
to claim 1, wherein

20 the insoluble electrode is configured by a  
multi-aperture electrode.

4. The electrolytic plating method according  
to claim 1, wherein:

25 the insoluble electrode is configured by a

multi-aperture metal mesh; and

the metal plating solution is implemented by a  
copper plating solution which includes iron ions by 0.1  
gram/liter or more, and performs pulse reverse  
5 electrolytic plating.

5. The electrolytic plating method according  
to claim 1, wherein:

the metal plating solution is a copper plating  
10 solution; and

the wiring board is a printed-circuit board.

6. The electrolytic plating method according  
to claim 1, further comprising:

15 arranging a plating bath which accommodates the  
insoluble electrode and the wiring board, and a  
copper dissolved bath which supplies copper ions to said  
plating bath; and

circulating a solution within the copper  
20 dissolved bath and the plating solution within the  
plating bath.

7. An electrolytic plating device for a wiring  
board, comprising:

25 an insoluble electrode which is an electrode as

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opposed to a wiring board;

a metal plating solution including iron ions by  
0.1 gram/liter or more; and

a power source for performing electrolytic  
5 plating by applying a forward/reverse current between  
the wiring board and said insoluble electrode.

8. The electrolytic plating device according  
to claim 7, wherein

10 microvia holes formed on a printed-circuit board  
are filled up with pulse reverse electrolytic plating.

9. The electrolytic plating device according  
to claim 7, further comprising

15 a stirring unit stirring said metal plating  
solution to make said metal plating solution flow in  
parallel to a surface to be plated of the wiring board.

10. The electrolytic plating device according  
20 to claim 9, further comprising:

a plating bath accommodating the insoluble  
electrode and the wiring board; and

a copper dissolved bath supplying copper ions to  
said plating bath, wherein

25 said stirring unit circulates a solution within

the copper dissolved bath and the plating solution within the plating bath.

11. The electrolytic plating device according  
5 to claim 7, wherein:

said insoluble electrode is implemented by a multi-aperture electrode; and

said plating solution is implemented by a copper plating solution.